



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/761,625	01/17/2001	Qi Wang	6956CIP	5289

7590 09/05/2002  
Occidental Chemical Corporation  
Patent Department  
5005 LBJ Freeway  
Dallas, TX 75244-6119

EXAMINER

EGWIM, KELECHI CHIDI

ART UNIT	PAPER NUMBER
----------	--------------

1713

DATE MAILED: 09/05/2002

3

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/761,625

Applicant(s)

WANG, QI

Examiner

Dr. Kelechi C. Egwim

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 January 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 4,7-9,11,13,15-19 and 22-24 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20 and 21 is/are allowed.
- 6) ☒ Claim(s) 1-3,5,10,12 and 14 is/are rejected.
- 7) ☒ Claim(s) 1 and 6 is/are objected to.
- 8) ☒ Claim(s) 1-24 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-21, drawn to a polymer with a stabilizer compound, classified in class 524, subclass 81.
  - II. Claims 22-24, drawn to a method of making a sterilized article, classified in class 53, subclass 426.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the product can be use to make non-sterilized products.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group I, restriction for examination purposes as indicated is proper.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

6. This application contains claims directed to the following patentably distinct species and sub-species of the claimed invention:

- a. wherein the stabilizer compounds do not have a ring structure (claims 3, 6 and 7).
  - i. sub-species wherein the stabilizer is cis-4-benzyloxy-2-buten-1-ol (claim 6).
  - ii. sub-species wherein the stabilizer is cis-1,4-dibenzyloxy-2-butene (claims 7 and 13).
- b. wherein the stabilizer compounds have a ring structure (claims 4, 8 and 9).
  - i. sub-species wherein the stabilizer is 4,7-dihydro-1,3-dioxepin (claim 8).
  - ii. sub-species wherein the stabilizer is phthalan (claim 9).
- c. wherein the stabilizer compounds are oligomeric/polymeric (claims 15-19).
  - i. sub-species wherein the pendent group in the stabilizer is according to claim 16.

- ii. sub-species wherein the pendent group in the stabilizer is according to claim 17.
- iii. sub-species wherein the pendent group in the stabilizer is according to claim 18.
- d. wherein X in the stabilizer is according to claim 11

If group I is elected, applicant is required under 35 U.S.C. 121 to elect a single disclosed species, and sub-species if applicable, for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

Currently, claim 1 is generic.

Applicant is advised that a reply to this requirement must include an identification of the species, and sub-species if applicable, that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the

Art Unit: 1713

case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

7. During a telephone conversation with Richard Fuerle on 8/26/02, a provisional election was made with traverse to prosecute the invention of Group I, species (a), subspecies (i), claim 6. Affirmation of this election must be made by applicant in replying to this Office action. Claims 4, 7-9, 11, 13, 15-19 and 22-24 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### ***Specification***

8. The abstract of the disclosure is objected to because it is not limited to a single paragraph on a single page.

Correction is required. See MPEP § 608.01(b).

### ***Claim Objections***

9. Claim 1 is objected to because of the following informalities:

The term "polyvinyl acetate", in Claim 1, line 3, should be followed by a comma.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

10. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. Claims 1-3, 5, 10, 12 and 14 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the stabilizer compounds in the examples, does not reasonably provide enablement for the multitude of stabilizer compounds recited the claims. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to **make and use all** the claimed stabilizer compounds in the invention, commensurate in scope with these claims.

***Claim Rejections - 35 USC § 102***

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Art Unit: 1713

13. Claims 1, 3, 5, 10, 12 and 14 are rejected under 35 U.S.C. 102(a or e) as anticipated by White et al. (USPN 5,760,171).

In col. 2, lines 15-49 and col. 4, lines 4-34, White et al. teach a process of mixing a polyether with 0.2 to 50 phr of 2-butene-1,4-diol.

Thus, the requirements for rejection under 35 U.S.C. 102(a or e) are met.

Regarding claim 5, it is noted that applicant is **not** claiming the article, a final product, but the polymer, the intermediate. As stated above, the polymer is anticipated by the reference.

14. Claims 1-3, 5, 10, 12 and 14 are rejected under 35 U.S.C. 102(b) as anticipated by GB 1560765 or Havens (USPN 4,686,148).

In page 2, lines 45-70, page 3, lines 59-63 and Example 7, GB1560765 teaches a process of mixing PVC with 0.01 to 5% by weight of 2-butene-1,4-diol.

In col. 6, lines 7-40, Table B, example 4, Havens teaches a process of mixing PVC with 0.1 % by weight of 1,4 butene diol.

Thus, the requirements for rejection under 35 U.S.C. 102(b) are met.

15. Claims 1-3, 5, 10, 12 and 14 are rejected under 35 U.S.C. 102(b) as anticipated by Takayangi et al. (USPN 5,352,721).



In the abstract and col. 4, lines 19-23, Takayangi et al. teach a thermoplastic resin prepared by blending a polyamide with 0.01 to 5 parts by weight of an acetal such as 7H,4H-1,3-dioxepine.

Thus, the requirements for rejection under 35 U.S.C. 102(b) are met.

***Allowable Subject Matter***

16. Claims 20 and 21 are allowable over the prior art of record.
17. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
18. The following is a statement of reasons for the indication of allowable subject matter: None of the prior art of record was found to teach the claimed polymer composition with the claimed amounts of the particular stabilizer compounds recited in claims 6 or 20. Claim 21 depends from claim 20.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kelechi C. Egwim whose telephone number is (703) 306-5701. The examiner can normally be reached on M-T (7:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (703) 308-2450. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

A handwritten signature in black ink, appearing to be 'KCE', with a long, sweeping horizontal line extending to the right.

KCE  
August 29, 2002